Application No.: 10/719,963

Response to the Notice of Allowance and Fee(s) Due dated May 30, 2007

Amendment dated August 28, 2007

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Amendments to the Specification

In the paragraph starting on page 3, starting with "To solve the above and other problems," please amend as the following:

To solve the above and other problems, according to the current invention, a method of color image processing based upon compressed data, includes the steps of: a) inputting original image data including pixel color values represented by a first number of color values in an original image; b) approximating the pixel color values based upon a second number of color values so as to generate approximated color image data, the second number being smaller than the first number; c) processing the approximated color image data so as to generate processed approximated color image data; and d) outputting a reproduced image based upon the processed approximated color image data. an image processing apparatus, including: a reader module for inputting original image data including a pixel color value for each pixel represented by a first predetermined number of n bits in an original image, the reader module approximating the pixel color value into a second predetermined number of m bits while performing error diffusion so as to generate approximated color image data, the m bits being smaller than the n bits; a variable length encoder unit connected to the reader module for variably compressing the approximated color image data to generate further approximated color image data before transmitting the further approximated color image data; a variable length decoder unit connected to the variable length encoder for variably decompressing the further approximated color image data back to the approximated color image data so that each pixel is represented by the m bits; and an image processing/reproduction module connected to the variable length decoder for processing the approximated color image data for performing a combination of image processing, intensity correction and color correction so as to generate processed approximated color image data, the image processing/reproduction module outputting a reproduced image based upon the processed approximated color image data.

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In the paragraph starting on page 4, starting with "According to a second aspect of the current invention," please amend as the following:

According to a second aspect of the current invention, a method of efficiently reproducing color image, includes the steps of: a) compressing pixel color values into compressed color image data representing a smaller number of colors than original number of colors in an input image; b) image processing the compressed color image data to generate processed compressed data; c) converting the processed compressed data to output processed color image data; and d) reproducing an image based upon the output processed color image data. a method of image processing, including the steps of: inputting original image data including a pixel color value for each pixel represented by a first predetermined number of n bits in an original image; approximating the pixel color value into a second predetermined number of m bits while performing error diffusion so as to generate approximated color image data, the m bits being smaller than the n bits; variably compressing the approximated color image data to generate further approximated color image data before transmitting the further approximated color image data; transmitting the further approximated color image data from a first location to a second location; receiving the further approximated color image data at the second location; variably decompressing the further approximated color image data back to the approximated color image data so that each pixel is represented by the m bits; processing the approximated color image data for performing a combination of image processing, intensity correction and color correction so as to generate processed approximated color image data; and outputting a reproduced image based upon the processed approximated color image data.

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In the paragraph starting on page 4, starting with "According to a third aspect of the current invention," please amend as the following:

According to a third aspect of the current invention, a system for color image processing based upon compressed data, includes: an input unit for converting an original image into pixel color values representing a first number of colors; an approximation unit connected to the input unit for approximating the pixel color values into approximated color image data representing a second number of colors, the second number being smaller than the first number; a processing unit connected to the approximation unit for processing the approximated color image data so as to generate processed approximated color image data; and an output unit connected to the processing unit for outputting an image based upon the processed approximated color image data, an image processing system, including: a transmission side including; a reader module for inputting original image data including a pixel color value for each pixel represented by a first predetermined number of n bits in an original image, the reader module approximating the pixel color value into a second predetermined number of m bits while performing error diffusion so as to generate approximated color image data, the m bits being smaller than the n bits; a variable length encoder unit connected to the reader module for variably compressing the approximated color image data to generate further approximated color image data before transmitting the further approximated color image data; and a reception side operationally connected to the transmission side including; a variable length decoder unit for variably decompressing the further approximated color image data back to the approximated color image data so that each pixel is represented by the m bits; and an image processing/reproduction module operationally connected to the variable length decoder unit for processing the approximated color image data for performing a combination of image processing, intensity correction and color correction so as to generate processed approximated color image data, said image processing/reproduction module outputting a reproduced image based upon the processed approximated color image data.

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In the paragraph starting on page 4, starting with "According to a fourth aspect of the current invention," please delete the following:

According to a fourth aspect of the current invention, a system for efficiently reproducing color image, includes: a compression unit for compressing pixel color values into compressed color image data representing a smaller number of colors than original number of colors in an input image; an image processing unit connected to the compression unit for image processing the compressed color image data to generate processed compressed data; a conversion unit connected to the image processing unit for converting the processed compressed data to output processed color image data; and an output unit connected to the conversion unit for reproducing an image based upon the output processed color image data: